

Appln No. 10/735,147
Amdt date February 23, 2006
Reply to Office action of November 23, 2005

REMARKS/ARGUMENTS

Claims 1-25 remain in the present application, of which claims 1 and 14 are independent. Claims 1 and 14 have been amended herein. Applicants respectfully request reconsideration and allowance of claims 1-25.

I. Rejection of Claims 1-4, 7, 8, 11 and 12 under 35 U.S.C. § 103(a)

Claims 1-4, 7, 8, 11 and 12 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,518,766 ("Burt") in view of U.S. Patent No. 5,853,290 ("Winston").

In rejecting claims 1-4, 7, 8, 11 and 12, the Examiner states "Burt shows an ultrasonic dental insert for an ultrasonic dental tool comprising a transducer . . . at least one O-ring 49 for shock absorption (column 4, lines 39-47) mounted between the connecting body and the hand grip and around the engagement portion, and a removable tip 31 engaging the engagement portion."

Burt has an o-ring 49 which serves to keep the tip axially centered and aligned and free of contact with the internal surface of the handpiece. It also provides back pressure against the resilient potting coating 31' (col. 4, lines 39-47).

According to MPEP § 2142, in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (Emphasis Added)

In the present invention, the O-ring 136 serves similar purposes as o-ring 49 of Burt. However, because Burt is not concerned with a plastic tip, which is more prone to breakage, as discussed in detailed in the present application (p. 9, lines 11-19), there is no motivation for Burt

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to provide a shock absorbing mechanism, such as that described in the present application (p. 9, line 20, to p.10, line 7).

While it is true that Winston discloses a plastic tip, Winston is unconcerned about its breakage and is thus also not motivated to provide a shock absorbing mechanism. By way of example, Winston contends that the problem with using plastic tip is solved by selection of the material as follows:

Due to the length of the tip and the constant application of ultrasonic energy, the tip 16 should be formed of a filled or unfilled composite polymer, such as a mixture of reinforced resins manufactured under the trademarks DELRIN, NORYL and LEXAN. DELRIN is an acetal resin type plastic that offers a high balance of strength and stiffness with a high fatigue endurance. NORYL is a polyphenylene oxide type plastic that has high heat and impact resistance. LEXAN is a polycarbonate resin that has high strength and heat resistance. Such materials are able to withstand the high stress and energy produced with constant ultrasonic vibration without excessive heating, particularly at the points along the bends. (Emphasis Added, Col. 4, line 57 through Col. 5, line 2).

Claim 1 has been amended and now it recites, in a relevant portion, "[a]n ultrasonic dental insert for an ultrasonic dental tool, comprising . . . at least one o-ring mounted between the connecting body and the handgrip to provide a seal between the connecting body and the handgrip; at least one O-ring for shock absorption, mounted on the connecting body and around the engagement portion; and a removable tip adapted to engage the engagement portion, wherein the removable tip is made of plastic." (Emphasis Added).

The combined teachings of Burt with that of Winston do not motivate one to come up with a shock absorbing mechanism. Even if, for the sake of argument, we were to take a position that one of ordinary skill in the art would be motivated to think of a shock absorbing mechanism in view of Burt and Winston, which Applicants by no means concede, there is still no motivation to come up with the one or two O-rings 140 and/or 144 about the engagement portion of the connecting body.

Therefore, Burt and Winston do not teach or suggest the ultrasonic dental insert of claim 1. Hence, applicants request that the rejection of claim 1 under 35 U.S.C. § 103(a) be withdrawn and that it be allowed. Since claims 2-4, 7, 8, 11 and 12 depend, directly or indirectly, from

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claim 1, they include all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-4, 7, 8, 11 and 12 over Burt and Winston be withdrawn and that they be allowed.

II. Rejection of Claims 5, 6, 9, 10 and 13 under 35 U.S.C. § 103(a)

Claims 5, 6, 9, 10 and 13 have been rejected over Burt in view of Winston, and U.S. Patent No. 4,169,984 ("Parisi") or U.S. Patent No. 6,086,369 ("Sharp et al.") or U.S. Patent No. 6,086,369 ("Finn") or U.S. Patent No. 4,589,847 (Loge et al.). Since claims 5, 6, 9, 10 and 13 depend, directly or indirectly, from claim 1, they each incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, Applicants request that the rejection of claims 5, 6, 9, 10 and 13 be withdrawn and that they be allowed.

III. Rejection of Claims 14-18, 20-22 and 25 under 35 U.S.C. § 103(a)

Claims 14-18, 20-22 and 25 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Burt in view of Winston and Sharp et al.

Claim 14 now recites, in a relevant portion, "[a]n ultrasonic dental unit comprising: an insert comprising . . . at least one o-ring mounted between the connecting body and the handgrip to provide a seal between the connecting body and the handgrip; at least one O-ring for shock absorption, mounted on the connecting body and around the engagement portion; and a removable tip adapted to engage the engagement portion, wherein the removable tip is made of plastic . . ."

For reasons that are substantially the same as those given above in reference to claim 1, claim 14 is patentably distinguishable over the cited references. Therefore, Applicants request that the rejection of claim 14 be withdrawn and that it be allowed. Since claims 15-18, 20-22 and 25 depend, directly or indirectly, from claim 14, they each incorporate all the terms and limitations of claim 14 in addition to other limitations, which together further patentably

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distinguish them over the cited references. Therefore, Applicants request that the rejection of claims 15-18, 20-22 and 25 be withdrawn and that they be allowed.

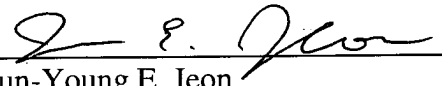
IV. Rejection of Claims 19, 23 and 24 under 35 U.S.C. § 103(a)

Claims 19, 23 and 24 have been rejected as allegedly being unpatentable over Burt in view of Winston and Sharp et al., and further in view of Parisi or Finn. Since claims 19, 23 and 24 depend, directly or indirectly, from claim 14, they each incorporate all the terms and limitations of claim 14 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, Applicants request that the rejection of claims 19, 23 and 24 be withdrawn and that they be allowed.

V. Concluding Remarks

In view of the foregoing amendments and remarks, Applicants request an earlier issuance of a patent with claims 1-25. If there are any remaining issues that can be addressed over the telephone, the Examiner is cordially invited to call Applicants' attorney at the number listed below.

Respectfully submitted,
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